



## **A comparison of paleosoils in different loess deposits**

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Paleosoils in loess deposits give information on past soil-forming environments. Clay minerals, soil organic matter and carbonate content are indicators of former climate conditions and pedogenesis (BAJNÓCZI et al., 2006; KARLSTROM et al., 2008).

Different paleosoils from Wolkersdorf (Austria), Dolni Vestonice (Czech Republic) and Mexico were studied. Clay minerals were identified using X-ray diffraction. In the samples from Wolkersdorf and Dolni Vestonice, chlorite, illite, and smectite dominated, while in the Mexican soils high amounts of poorly crystallized kaolinite were found.

Soil analyses included chemical parameters like pH-value, C/N-ratio, carbonate content and cation exchange capacity of the fine soil, as well as of the clay fraction. Also particle size analyses were performed.

The composition of soil organic matter was characterised using Fourier transform infrared (FT-IR) spectroscopy, thermogravimetry and differential scanning calorimetry.

### References:

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